```
=> index bioscience medicine

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
   AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
   BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
   CROPU, DDFB, DDFU, DGENE, DISSABS, ...' ENTERED AT 19:08:22 ON 29 AUG 2005

77 FILES IN THE FILE LIST IN STNINDEX

=> s (peptide(s)deformylase#) or(polypeptide(s)deformylase#) or
(formyl-l-methionyl peptide amidohydrolase) or deformylase#
     5  FILE ADISCTI
    12  FILE ADISINSIGHT
     1  FILE ADISNEWS
    14  FILE AGRICOLA
     4  FILE ANABSTR
     2  FILE AQUASCI
     1  FILE BIOBUSINESS
     2  FILE BIOCOMMERCE
    24  FILE BIOENG
   268  FILE BIOSIS
    34  FILE BIOTECHABS
    34  FILE BIOTECHDS
    74  FILE BIOTECHNO
    16  FILE CABA
    12  FILE CANCERLIT
   365  FILE CAPLUS
     5  FILE CEABA-VTB
     1  FILE CEN
    12  FILE CIN
     8  FILE CONFSCI
     1  FILE CROPU
     2  FILE DDFB
    68  FILE DDFU
   130  FILE DGENE
 27 FILES SEARCHED...
     9  FILE DISSABS
     2  FILE DRUGB
    70  FILE DRUGU
     6  FILE EMBAL
   220  FILE EMBASE
   125  FILE ESBIOBASE
    15* FILE FEDRIP
   560  FILE GENBANK
    60  FILE IFIPAT
    24  FILE IMSDRUGNEWS
    15  FILE IMSRESEARCH
     2  FILE JICST-EPLUS
    74  FILE LIFESCI
   214  FILE MEDLINE
     1  FILE NIOSHTIC
    68  FILE PASCAL
 54 FILES SEARCHED...
     9  FILE PHAR
     8  FILE PHARMAML
    19  FILE PHIN
   134  FILE PROMT
   107  FILE PROUSDDR
   280  FILE SCISEARCH
     3  FILE SYNTHLINE
    96  FILE TOXCENTER
   135  FILE USPATFULL
    15  FILE USPAT2
    78  FILE WPIDS
    78  FILE WPINDEX
     1  FILE NAPRALERT
    34  FILE NLDB

 54 FILES HAVE ONE OR MORE ANSWERS,  77 FILES SEARCHED IN STNINDEX
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L1  QUE (PEPTIDE(S) DEFORMYLASE#) OR(POLYPEPTIDE(S) DEFORMYLASE#) OR (FORMYL-L
     -METHIONYL PEPTIDE AMIDOHYDROLASE) OR DEFORMYLASE#

=> d rank
F1      560  GENBANK
F2      365  CAPLUS
F3      280  SCISEARCH
F4      268  BIOSIS
F5      220  EMBASE
F6      214  MEDLINE
F7      135  USPATFULL
F8      134  PROMT
F9      130  DGENE
F10      125  ESBIOBASE
F11      107  PROUSDDR
F12       96  TOXCENTER
F13       78  WPIDS
F14       78  WPINDEX
F15       74  BIOTECHNO
F16       74  LIFESCI
F17       70  DRUGU
F18       68  DDFU
F19       68  PASCAL
F20       60  IFIPAT
F21       34  BIOTECHABS
F22       34  BIOTECHDS
F23       34  NLDB
F24       24  BIOENG
F25       24  IMSDRUGNEWS
F26       19  PHIN
F27       16  CABA
F28       15  IMSRESEARCH
F29       15  USPAT2
F30       15*  FEDRIP
F31       14  AGRICOLA
F32       12  ADISINSIGHT
F33       12  CANCERLIT
F34       12  CIN
F35        9  DISSABS
F36        9  PHAR
F37        8  CONFSCI
F38        8  PHARMAML
F39        6  EMBAL
F40        5  ADISCTI
F41        5  CEABA-VTB
F42        4  ANABSTR
F43        3  SYNTHLINE
F44        2  AQUASCI
F45        2  BIOCOMMERCE
F46        2  DDFB
F47        2  DRUGB
F48        2  JICST-EPLUS
F49        1  ADISNEWS
F50        1  BIOBUSINESS
F51        1  CEN
F52        1  CROPU
F53        1  NIOSHTIC
F54        1  NAPRALERT


=> file f2-f8, f10-f13, f15-16, f31
COST IN U.S. DOLLARS                    SINCE FILE     TOTAL
                                   ENTRY     SESSION
FULL ESTIMATED COST                          5.90       6.11

FILE 'CAPLUS' ENTERED AT 19:14:24 ON 29 AUG 2005
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FILE 'AGRICOLA' ENTERED AT 19:14:24 ON 29 AUG 2005

=> s l1
L2       2184 L1

=> s (gene# or sequence# or polynucleotide# or clone# or recombinant#)(s) L2
  4 FILES SEARCHED...
 12 FILES SEARCHED...
L3        433 (GENE# OR SEQUENCE# OR POLYNUCLEOTIDE# OR CLONE# OR RECOMBINANT#
            )(S) L2

=> S plant (s) l3
L4         42 PLANT (S) L3

=> S plant# (s) l3
L5         48 PLANT# (S) L3

=> dup rem l5
DUPLICATE IS NOT AVAILABLE IN 'PROUSDDR'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L5
L6          31 DUP REM L5 (17 DUPLICATES REMOVED)

=> d ibib abs l6 1-31

L6  ANSWER 1 OF 31  USPATFULL on STN
ACCESSION NUMBER:       2005:144937  USPATFULL
TITLE:                  Peptide deformylase inhibitors
INVENTOR(S):            Aubart, Kelly M, Collegeville, PA, UNITED STATES
                        Bhat, Ajita, Raleigh, NC, UNITED STATES
                        Christensen, Siegfried B. IV, Collegeville, PA, UNITED
                        STATES
                        Leber, Jack D., Collegeville, PA, UNITED STATES
                        Liao, Xiangmin, Collegeville, PA, UNITED STATES
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                    NUMBER      KIND   DATE
                    ---------------- ------ --------
PATENT INFORMATION:     US 2005124677       A1    20050609
APPLICATION INFO.:      US 2003-507510     A1    20030312  (10)
                    WO 2003-US7509          20030312

                      NUMBER          DATE
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PRIORITY INFORMATION:   US 2003-364423P    20020313 (60)
DOCUMENT TYPE:          Utility
FILE SEGMENT:           APPLICATION
LEGAL REPRESENTATIVE:   SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
                    PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
                    PA, 19406-0939, US
NUMBER OF CLAIMS:       3
EXEMPLARY CLAIM:        1
LINE COUNT:             510
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    Novel PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 2 OF 31  USPATFULL on STN
ACCESSION NUMBER:       2004:335920  USPATFULL
TITLE:                  Peptide deformylase inhibitors
INVENTOR(S):            Bhat, Ajita, Collegeville, PA, UNITED STATES
                    Christensen, Siegfried B., Collegeville, PA, UNITED
                    STATES
                    Frazee, James S., King of Prussia, PA, UNITED STATES
                    Head, Martha S., Collegeville, PA, UNITED STATES
                    Leber, Jack D., King of Prussia, PA, UNITED STATES
                    Li, Mei, Collegeville, PA, UNITED STATES

                    NUMBER      KIND   DATE
                    ---------------- ------ --------
PATENT INFORMATION:     US 2004267015       A1    20041230
APPLICATION INFO.:      US 2003-473104     A1    20030929  (10)
                    WO 2002-US10506         20020404

                      NUMBER          DATE
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PRIORITY INFORMATION:   US 2001-281613P    20010405 (60)
DOCUMENT TYPE:          Utility
FILE SEGMENT:           APPLICATION
LEGAL REPRESENTATIVE:   SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
                    PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
                    PA, 19406-0939
NUMBER OF CLAIMS:       6
EXEMPLARY CLAIM:        1
LINE COUNT:             542
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 3 OF 31  USPATFULL on STN
ACCESSION NUMBER:       2004:248119  USPATFULL
TITLE:                  Peptide deformylase inhibitors
INVENTOR(S):            Aubart, Kelly M., King of Prussia, PA, UNITED STATES
                    Christensen, Siegfried B., IV, King of Prussia, PA,
                    UNITED STATES
                    Briand, Jacques, King of Prussia, PA, UNITED STATES
                    Cummings, Maxwell David, Stratford, PA, UNITED STATES
PATENT ASSIGNEE(S):     SmithKline Beecham Corporation (U.S. corporation)

                    NUMBER      KIND   DATE
                    ---------------- ------ --------
PATENT INFORMATION:     US 2004192719       A1    20040930
APPLICATION INFO.:      US 2004-818074     A1    20040405  (10)
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RELATED APPLN. INFO.:  Division of Ser. No. US 2002-275522, filed on 5 Nov
           2002, PENDING
DOCUMENT TYPE:      Utility
FILE SEGMENT:      APPLICATION
LEGAL REPRESENTATIVE:  GLAXOSMITHKLINE, Corporate Intellectual Property -
           UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
NUMBER OF CLAIMS:    5
EXEMPLARY CLAIM:    CLM-001-3
LINE COUNT:        452
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB   PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 4 OF 31  USPATFULL on STN
ACCESSION NUMBER:    2004:204024  USPATFULL
TITLE:           Peptide deformylase inhibitors
INVENTOR(S):        Christensen IV, Siegfried B., Collegeville, PA, UNITED
           STATES
           Cummings, Maxwell D., Strafford, PA, UNITED STATES
           Karpinski, Joseph M., Collegeville, PA, UNITED STATES

             NUMBER      KIND   DATE
           ---------------- ------ --------
PATENT INFORMATION:   US 2004157916     A1   20040812
           US 6852882        B2   20050208
APPLICATION INFO.:   US 2003-478620    A1   20031117 (10)
           WO 2002-US17697      20020604
DOCUMENT TYPE:      Utility
FILE SEGMENT:      APPLICATION
LEGAL REPRESENTATIVE:  SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
           PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
           PA, 19406-0939
NUMBER OF CLAIMS:    5
EXEMPLARY CLAIM:    1
LINE COUNT:        729
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB   Novel PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 5 OF 31  USPATFULL on STN
ACCESSION NUMBER:    2004:172837  USPATFULL
TITLE:           PEPTIDE DEFORMYLASE INHIBITORS
INVENTOR(S):        Xiang, Jia-Ning, Palo Atto, CA, UNITED STATES
           Christensen IV, Siegfried B., Collegeville, PA, UNITED
           STATES
           Lee, Jinhwa, Collegeville, PA, UNITED STATES

             NUMBER      KIND   DATE
           ---------------- ------ --------
PATENT INFORMATION:   US 2004133001     A1   20040708
           US 6797730        B2   20040928
APPLICATION INFO.:   US 2004-469515    A1   20040218 (10)
           WO 2002-US6260       20020301
DOCUMENT TYPE:      Utility
FILE SEGMENT:      APPLICATION
LEGAL REPRESENTATIVE:  SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
           PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
           PA, 19406-0939
NUMBER OF CLAIMS:    4
EXEMPLARY CLAIM:    1
LINE COUNT:        371
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB   Novel PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 6 OF 31  USPATFULL on STN
ACCESSION NUMBER:    2004:171989  USPATFULL
```

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TITLE:          Isolated nucleic acids encoding
                methylenetetrahydrofolate dehydrogenase enzymes
INVENTOR(S):        Falco, Saverio Carl, Arden, DE, UNITED STATES
                Famodu, Layo O., Newark, DE, UNITED STATES
                Rafalski, J. Antoni, Wilmington, DE, UNITED STATES

                  NUMBER      KIND   DATE
                ---------------- ------ --------
PATENT INFORMATION:   US 2004132150    A1   20040708
                US 6838276      B2  20050104
APPLICATION INFO.:   US 2003-723061   A1   20031126 (10)
RELATED APPLN. INFO.:  Division of Ser. No. US 2001-903814, filed on 12 Jul
                2001, GRANTED, Pat. No. US 6680428 Division of Ser. No.
                US 1999-351703, filed on 12 Jul 1999, ABANDONED

                   NUMBER       DATE
                ------------------ --------
PRIORITY INFORMATION:  US 1998-92869P    19980715 (60)
DOCUMENT TYPE:        Utility
FILE SEGMENT:       APPLICATION
LEGAL REPRESENTATIVE:  E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT
                RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417
                LANCASTER PIKE, WILMINGTON, DE, 19805
NUMBER OF CLAIMS:     24
EXEMPLARY CLAIM:      1
LINE COUNT:         1996
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    This invention relates to an isolated nucleic acid fragment encoding a
      tetrahydrofolate metabolism enzyme. The invention also relates to the
      construction of a chimeric gene encoding all or a portion of the
      tetrahydrofolate metabolism enzyme, in sense or antisense orientation,
      wherein expression of the chimeric gene results in production of altered
      levels of the tetrahydrofolate metabolism enzyme in a transformed host
      cell.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6   ANSWER 7 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2004:139619  USPATFULL
TITLE:          Peptide deformylase inhibitors
INVENTOR(S):        Bhat, Ajita, Collegeville, PA, UNITED STATES
                Christensen IV, Siegfried B., Collegeville, PA, UNITED
                STATES
                Frazee, James S., King of Prussia, PA, UNITED STATES
                Head, Martha S., Collegeville, PA, UNITED STATES
                Leber, Jack D., King of Prussia, PA, UNITED STATES
                Li, Mei, Collegeville, PA, UNITED STATES

                  NUMBER      KIND   DATE
                ---------------- ------ --------
PATENT INFORMATION:   US 2004106795    A1   20040603
APPLICATION INFO.:   US 2003-473060   A1   20030929 (10)
                WO 2002-US10648      20020404
DOCUMENT TYPE:        Utility
FILE SEGMENT:       APPLICATION
LEGAL REPRESENTATIVE:  SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
                PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
                PA, 19406-0939
NUMBER OF CLAIMS:     6
EXEMPLARY CLAIM:      1
LINE COUNT:         757
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6   ANSWER 8 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2004:127747  USPATFULL
TITLE:          Peptide deformylase inhibitors
INVENTOR(S):        Aubart, Kelly M, Collegeville, PA, UNITED STATES
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          Xiang, Jia-Ning, Palo Alto, CA, UNITED STATES
          Christensen, Siegfried B, IV, Collegeville, PA, UNITED
          STATES
          Liao, XIangmin, Collegeville, PA, UNITED STATES
          Cummings, Maxwell D, Strafford, PA, UNITED STATES

            NUMBER     KIND  DATE
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PATENT INFORMATION:   US 2004097732    A1  20040520
APPLICATION INFO.:    US 2003-469434   A1  20030828 (10)
          WO 2002-US6258       20020301
DOCUMENT TYPE:        Utility
FILE SEGMENT:         APPLICATION
LEGAL REPRESENTATIVE:  SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
          PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
          PA, 19406-0939
NUMBER OF CLAIMS:     3
EXEMPLARY CLAIM:      1
LINE COUNT:           995
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 9 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2004:115906  USPATFULL
TITLE:                Inhibitors of plant peptide deformylase for use as
          broad -spectrum herbicides and methods for identifying
          the same
INVENTOR(S):          Houtz, Robert L., Lexington, KY, UNITED STATES
          Dirk, Lynnette M.A., Lexington, KY, UNITED STATES
          Williams, Mark Alan, Lexington, KY, UNITED STATES
PATENT ASSIGNEE(S):   University of Kentucky Research Foundation, Lexington,
          KY, 40506-0058 (U.S. corporation)

            NUMBER     KIND  DATE
          ---------------- ------ --------
PATENT INFORMATION:   US 2004088755    A1  20040506
APPLICATION INFO.:    US 2003-680100   A1  20031008 (10)
RELATED APPLN. INFO.: Division of Ser. No. US 2000-617805, filed on 14 Jul
          2000, PENDING
DOCUMENT TYPE:        Utility
FILE SEGMENT:         APPLICATION
LEGAL REPRESENTATIVE:  BURNS DOANE SWECKER & MATHIS L L P, POST OFFICE BOX
          1404, ALEXANDRIA, VA, 22313-1404
NUMBER OF CLAIMS:     33
EXEMPLARY CLAIM:      1
NUMBER OF DRAWINGS:   9 Drawing Page(s)
LINE COUNT:           2035
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    The invention relates to a method of identifying herbicides and to the
      use of inhibitors of plant peptide deformylase as broad spectrum
      herbicides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 10 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2004:114739  USPATFULL
TITLE:                Peptide deformylase inhibitors
INVENTOR(S):          Xiang, Jia-Ning, Palo Alto, CA, UNITED STATES
          Christensen, Siegfried B, IV, Collegeville, PA, UNITED
          STATES
          Lee, Jinhwa, Collegeville, PA, UNITED STATES
          Mercer, Daniel J, Collegeville, PA, UNITED STATES

            NUMBER     KIND  DATE
          ---------------- ------ --------
PATENT INFORMATION:   US 2004087585    A1  20040506
APPLICATION INFO.:    US 2003-469433   A1  20030828 (10)
          WO 2002-US6275       20020301
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DOCUMENT TYPE:      Utility
FILE SEGMENT:       APPLICATION
LEGAL REPRESENTATIVE:  SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
              PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
              PA, 19406-0939
NUMBER OF CLAIMS:    10
EXEMPLARY CLAIM:     1
LINE COUNT:         2586
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    Nobel PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 11 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2004:101986  USPATFULL
TITLE:             Peptide deformylase inhibitors
INVENTOR(S):          Xiang, Jia-Ning, Palo Alto, CA, UNITED STATES
              Christensen IV, Siegfried B., Collegeville, PA, UNITED
              STATES
              Liao, Xiangmin, Collegeville, PA, UNITED STATES
              Cummings, Maxwell D., Strafford, PA, UNITED STATES

                NUMBER      KIND   DATE
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PATENT INFORMATION:    US 2004077856     A1   20040422
              US 6897233        B2   20050524
APPLICATION INFO.:    US 2003-469560    A1   20030829  (10)
              WO 2002-US6261         20020301
DOCUMENT TYPE:      Utility
FILE SEGMENT:       APPLICATION
LEGAL REPRESENTATIVE:  SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
              PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
              PA, 19406-0939
NUMBER OF CLAIMS:    3
EXEMPLARY CLAIM:     1
LINE COUNT:         552
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 12 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2004:70704  USPATFULL
TITLE:             Peptide deformylase inhibtors
INVENTOR(S):          Aubart, Kelly M., King of Prussia, PA, UNITED STATES
              Christensen IV, Siegfried B., King of Prussia, PA,
              UNITED STATES
              Briand, Jacques, King of Prussia, PA, UNITED STATES
              Cummings, Maxwell David, Stratford, PA, UNITED STATES

                NUMBER      KIND   DATE
              ---------------- ------ --------
PATENT INFORMATION:    US 2004053932     A1   20040318
              US 6806369        B2   20041019
APPLICATION INFO.:    US 2002-275522    A1   20021105  (10)
              WO 2001-US14593        20010504
DOCUMENT TYPE:      Utility
FILE SEGMENT:       APPLICATION
LEGAL REPRESENTATIVE:  SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
              PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
              PA, 19406-0939
NUMBER OF CLAIMS:    7
EXEMPLARY CLAIM:     1
LINE COUNT:         436
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    The present invention involves novel anti-bacterial compounds
      represented by Formula (I) hereinbelow and their use as PDF inhibitors.

      The present invention further provides methods for inhibiting PDF in an
      animal, including humans, which comprises administering to a subject in
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    need of treatment an effective amount of a compound of Formula (I) as
    indicated hereinbelow.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 13 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2004:45031  USPATFULL
TITLE:                Peptide deformylase inhibitors
INVENTOR(S):          Aubart, Kelly M, King of Prussia, PA, UNITED STATES
                      Christensen, Siegfried B, King of Prussia, PA, UNITED
                      STATES
                      Briand, Jacques, King of Prussia, PA, UNITED STATES
                      Cummings, Maxwell David, Strafford, PA, UNITED STATES

                        NUMBER        KIND    DATE
                      ---------------- ------ --------
PATENT INFORMATION:   US 2004034024   A1   20040219
APPLICATION INFO.:    US 2002-275523   A1   20021105 (10)
                      WO 2001-US14578      20010504
DOCUMENT TYPE:        Utility
FILE SEGMENT:         APPLICATION
LEGAL REPRESENTATIVE: SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL
                      PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA,
                      PA, 19406-0939
NUMBER OF CLAIMS:     3
EXEMPLARY CLAIM:      1
LINE COUNT:           415
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    PDF inhibitors and novel methods for their use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 14 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2004:38677  USPATFULL
TITLE:                Proteins, polynucleotides encoding them and methods of
                      using the same
INVENTOR(S):          Padigaru, Muralidhara, Branford, CT, UNITED STATES
                      Li, Li, Branford, CT, UNITED STATES
                      Zerhusen, Bryan D., Branford, CT, UNITED STATES
                      Casman, Stacie J., North Haven, CT, UNITED STATES
                      Shenoy, Suresh G., Branford, CT, UNITED STATES
                      Spytek, Kimberly, New Haven, CT, UNITED STATES
                      Zhong, Mei, Branford, CT, UNITED STATES
                      Gangolli, Esha A., Madison, CT, UNITED STATES
                      Burgess, Catherine E., Wethersfield, CT, UNITED STATES
                      Patturajan, Meera, Branford, CT, UNITED STATES
                      Vernet, Corine A.M., Branford, CT, UNITED STATES
                      Taylor, Sarah, Guilford, CT, UNITED STATES
                      Tchernev, Velizar T., Branford, CT, UNITED STATES
                      Miller, Charles E., Guilford, CT, UNITED STATES
                      Guo, Xiaojia, Branford, CT, UNITED STATES
                      Boldog, Ferenc L., North Haven, CT, UNITED STATES
                      Grosse, William M., Branford, CT, UNITED STATES
                      Alsobrook, John P., II, Madison, CT, UNITED STATES
                      Gerlach, Valerie L., Branford, CT, UNITED STATES
                      Edinger, Shlomit R., New Haven, CT, UNITED STATES
                      Rothenberg, Mark E., Clinton, CT, UNITED STATES
                      Ellerman, Karen, Branford, CT, UNITED STATES
                      MacDougall, John, Hamden, CT, UNITED STATES
                      Malyankar, Uriel M., Branford, CT, UNITED STATES
                      Millet, Isabelle, Milford, CT, UNITED STATES
                      Peyman, John, New Haven, CT, UNITED STATES
                      Smithson, Glennda, Branford, CT, UNITED STATES
                      Gunther, Erik, Branford, CT, UNITED STATES
                      Stone, David, Guilford, CT, UNITED STATES

                        NUMBER        KIND    DATE
                      ---------------- ------ --------
PATENT INFORMATION:   US 2004029216   A1   20040212
APPLICATION INFO.:    US 2002-42865   A1   20020109 (10)
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                    NUMBER        DATE
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PRIORITY INFORMATION:  US 2001-260417P   20010109 (60)
                 US 2001-260831P   20010110 (60)
                 US 2001-272338P   20010228 (60)
                 US 2001-274876P   20010309 (60)
                 US 2001-284704P   20010418 (60)
DOCUMENT TYPE:         Utility
FILE SEGMENT:          APPLICATION
LEGAL REPRESENTATIVE:  Ivor R. Elrifi, MINTZ, LEVIN, COHN, FERRIS,, GLOVSKY
                 and POPEO, P.C., One Financial Center, Boston, MA,
                 02111
NUMBER OF CLAIMS:      41
EXEMPLARY CLAIM:       1
LINE COUNT:            16255
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    Disclosed herein are nucleic acid sequences that encode novel
      polypeptides. Also disclosed are polypeptides encoded by these nucleic
      acid sequences, and antibodies, which immunospecifically-bind to the
      polypeptide, as well as derivatives, variants, mutants, or fragments of
      the aforementioned polypeptide, polynucleotide, or antibody. The
      invention further discloses therapeutic, diagnostic and research methods
      for diagnosis, treatment, and prevention of disorders involving any one
      of these novel human nucleic acids and proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 15 OF 31  USPATFULL on STN
ACCESSION NUMBER:      2004:109931  USPATFULL
TITLE:                 Inhibitors of plant peptide deformylase for use as
                 broad-spectrum herbicides and method for identifying
                 the same
INVENTOR(S):           Houtz, Robert L., Lexington, KY, United States
                 Dirk, Lynnette M. A., Lexington, KY, United States
                 Williams, Mark Alan, Lexington, KY, United States
PATENT ASSIGNEE(S):    University of Kentucky Research Foundation, Lexington,
                 KY, United States (U.S. corporation)

                   NUMBER      KIND   DATE
                 ---------------- ------ --------
PATENT INFORMATION:    US 6730634       B1   20040504
APPLICATION INFO.:     US 2000-617805        20000714  (9)
DOCUMENT TYPE:         Utility
FILE SEGMENT:          GRANTED
PRIMARY EXAMINER:      Clardy, S. Mark
LEGAL REPRESENTATIVE:  Burns, Doane, Swecker & Mathis, L.L.P.
NUMBER OF CLAIMS:      10
EXEMPLARY CLAIM:       1
NUMBER OF DRAWINGS:    9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT:            1963
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    The invention relates to a method of identifying herbicides and to the
      use of inhibitors of plant peptide deformylase as broad spectrum
      herbicides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 16 OF 31  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:      2004:221037  CAPLUS
TITLE:                 Actinonin-induced inhibition of plant peptide
                 deformylase: A paradigm for the design of novel
                 broad-spectrum herbicides
AUTHOR(S):             Williams, Mark A.; Hou, Cai-Xia; Dirk, Lynnette M. A.
CORPORATE SOURCE:      Horticulture, University of Kentucky, Lexington, KY,
                 40546, USA
SOURCE:                Abstracts of Papers, 227th ACS National Meeting,
                 Anaheim, CA, United States, March 28-April 1, 2004
                 (2004), AGFD-030. American Chemical Society:
                 Washington, D. C.
```

CODEN: 69FGKM
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English

AB Peptide deformylase, which catalyzes the removal of N-formyl groups from the initiating N-formyl-methionine of nascent polypeptides, has recently been characterized from several plants including Arabidopsis thaliana. The cDNAs for the Arabidopsis thaliana DEFs, At DEF 1 and AtDEF2, encode enzymes which are functionally active in vitro and are catalytically inactivated by the naturally occurring peptide deformylase inhibitor actinonin, a product of a soil-borne actinomycete. Actinonin has profound herbicidal effects when applied to many plant species both pre and post-emergence. Transgenic tobacco plants were engineered to over-express each of the AtDEF proteins. These plants were completely resistant to the herbicidal effects of actinonin. This data provides the first unequivocal evidence that the lethality of actinonin to plants in vivo is strictly a consequence of the inhibition of peptide deformylase activity. This work also confirms that ***peptide*** ***deformylase*** is a valid target for both the development of novel broad-spectrum herbicides, and the engineering of herbicide selectivity in ***plants*** without the use of foreign ***genes*** .

L6 ANSWER 17 OF 31 TOXCENTER COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:67665 TOXCENTER
COPYRIGHT: Copyright 2005 ACS
TITLE: Actinonin-induced inhibition of plant peptide deformylase: A paradigm for the design of novel broad-spectrum herbicides
AUTHOR(S): Williams, Mark A.; Hou, Cai-Xia; Dirk, Lynnette M. A.
CORPORATE SOURCE: Horticulture, University of Kentucky, Lexington, KY, 40546, USA.
SOURCE: Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004, (2004) pp. AGFD-030.
CODEN: 69FGKM.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Conference
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 2004:221037
LANGUAGE: English
ENTRY DATE: Entered STN: 20040323
Last Updated on STN: 20040323

AB Peptide deformylase, which catalyzes the removal of N-formyl groups from the initiating N-formyl-methionine of nascent polypeptides, has recently been characterized from several plants including Arabidopsis thaliana. The cDNAs for the Arabidopsis thaliana DEFs, At DEF 1 and AtDEF2, encode enzymes which are functionally active in vitro and are catalytically inactivated by the naturally occurring peptide deformylase inhibitor actinonin, a product of a soil-borne actinomycete. Actinonin has profound herbicidal effects when applied to many plant species both pre and post-emergence. Transgenic tobacco plants were engineered to over-express each of the AtDEF proteins. These plants were completely resistant to the herbicidal effects of actinonin. This data provides the first unequivocal evidence that the lethality of actinonin to plants in vivo is strictly a consequence of the inhibition of peptide deformylase activity. This work also confirms that ***peptide*** ***deformylase*** is a valid target for both the development of novel broad-spectrum herbicides, and the engineering of herbicide selectivity in ***plants*** without the use of foreign ***genes*** .

L6 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:633744 CAPLUS
DOCUMENT NUMBER: 139:175862
TITLE: Cloning, ***sequence*** , and ***recombinant*** expression of ***plant*** ***peptide*** ***deformylase***
INVENTOR(S): Butler, Karlene H.; Falco, Saverio Carl; Gutteridge, Steven; Harvell, Leslie T.
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2

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DOCUMENT TYPE:     Patent
LANGUAGE:          English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

    PATENT NO.       KIND  DATE      APPLICATION NO.     DATE
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    WO 2003066668     A2   20030814  WO 2003-US5865       20030206
    WO 2003066668     A3   20040318
      W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
         GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
         LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
         PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
         UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
      RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
         KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
         FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    US 2003200559     A1   20031023  US 2003-359513       20030206
    EP 1478224        A2   20041124  EP 2003-709358       20030206
      R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRIORITY APPLN. INFO.:               US 2002-355007P   P 20020208
                                     WO 2003-US5865    W 20030206
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AB This invention relates to an isolated nucleic acid fragment encoding a metalloprotease, more specifically peptide deformylase. The cDNA and encoded amino acid sequences of peptide deformylase from corn, rice, soybean, and wheat are disclosed. The invention also relates to the construction of a recombinant DNA construct encoding all or a portion of peptide deformylase, in sense or antisense orientation, wherein expression of the recombinant DNA construct results in prodn. of altered levels of peptide deformylase in a transformed host cell.

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L6  ANSWER 19 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2003:288648 USPATFULL
TITLE:                Human methionine aminopeptidase type 3
INVENTOR(S):          Sympson, Carolyn J., Ballwin, MO, UNITED STATES
                      Aurora, Rajeev, Glencoe, MO, UNITED STATES
                      Dotson, Stanton B., Chesterfield, MO, UNITED STATES
                      Frazier, Ronald B., Lake St. Louis, MO, UNITED STATES
                      Woods, Cynthia L., St. Peters, MO, UNITED STATES
                      Zakeri, Hamideh, Chesterfield, MO, UNITED STATES
                      Zhou, Xianzhi, Chesterfield, MO, UNITED STATES

                        NUMBER        KIND   DATE
                      ---------------- ------ --------
PATENT INFORMATION:   US 2003203406    A1   20031030
APPLICATION INFO.:    US 2002-299867   A1   20021119 (10)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-523263, filed
                      on 10 Mar 2000, PENDING

                        NUMBER        DATE
                      ------------------ --------
PRIORITY INFORMATION: US 1999-125139P   19990311 (60)
DOCUMENT TYPE:        Utility
FILE SEGMENT:         APPLICATION
LEGAL REPRESENTATIVE: PHARMACIA CORPORATION, GLOBAL PATENT DEPARTMENT, POST
                      OFFICE BOX 1027, ST. LOUIS, MO, 63006
NUMBER OF CLAIMS:     61
EXEMPLARY CLAIM:      1
NUMBER OF DRAWINGS:   20 Drawing Page(s)
LINE COUNT:           5532
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

AB Methionine aminopeptidases catalyse the co-translational removal of amino terminal methionine residues from nascent polypeptide chains. A newly-discovered enzyme, designated methionine aminopeptidase type-3 (MetAP-3), has a substrate specificity which is similar to MetAP-1 and MetAP-2, although it is not inhibited by fumagillin, an irreversible inhibitor of MetAP-2. MetAP-3 also preferentially localizes to

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     mitochondria, unlike MetAP-1 and MetAP-2, which accumulate in the
     cytoplasm. One embodiment of the present invention relates to human
     cDNAs encoding polypeptides comprising MetAP-3. Other embodiments of the
     invention relate to nucleic acid molecules derived from these cDNAs,
     including complements, homologues, and fragments thereof, and methods of
     using these nucleic acid molecules, to generate polypeptides and
     fragments thereof. Other embodiments of the invention relate to
     antibodies directed against polypeptides comprising MetAP-3, and methods
     to screen for compounds or compositions that preferentially or
     specifically effect the activity of polypeptides comprising MetAP-3.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 20 OF 31  USPATFULL on STN
ACCESSION NUMBER:       2003:284214  USPATFULL
TITLE:                  Peptide deformylase
INVENTOR(S):            Butler, Karlene H., Newark, DE, UNITED STATES
                        Falco, Saverio Carl, Arden, DE, UNITED STATES
                        Gutteridge, Steven, Wilmington, DE, UNITED STATES
                        Harvell, Leslie T., Newark, DE, UNITED STATES

                          NUMBER        KIND   DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 2003200559    A1   20031023
APPLICATION INFO.:      US 2003-359513   A1   20030206 (10)

                           NUMBER         DATE
                        ------------------ --------
PRIORITY INFORMATION:   US 2002-355007P    20020208 (60)
DOCUMENT TYPE:          Utility
FILE SEGMENT:           APPLICATION
LEGAL REPRESENTATIVE:   E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT
                        RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417
                        LANCASTER PIKE, WILMINGTON, DE, 19805
NUMBER OF CLAIMS:       21
EXEMPLARY CLAIM:        1
NUMBER OF DRAWINGS:     2 Drawing Page(s)
LINE COUNT:             1888
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB   This invention relates to an isolated nucleic acid fragment encoding a
     metalloprotease, more specifically peptide deformylase. The invention
     also relates to the construction of a recombinant DNA construct encoding
     all or a portion of peptide deformylase, in sense or antisense
     orientation, wherein expression of the recombinant DNA construct results
     in production of altered levels of peptide deformylase in a transformed
     host cell.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 21 OF 31  USPATFULL on STN
ACCESSION NUMBER:       2003:3453  USPATFULL
TITLE:                  Regulation of human mitochondrial deformylase
INVENTOR(S):            Ramakrishnan, Shyam, Brighton, MA, UNITED STATES

                          NUMBER        KIND   DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 2003003488    A1   20030102
APPLICATION INFO.:      US 2002-149256   A1   20020610 (10)
                        WO 2000-EP12110       20001201

                           NUMBER         DATE
                        ------------------ --------
PRIORITY INFORMATION:   US 1999-60169615   19991208
                        US 2000-60239106   20001011
DOCUMENT TYPE:          Utility
FILE SEGMENT:           APPLICATION
LEGAL REPRESENTATIVE:   BANNER & WITCOFF, 1001 G STREET N W, SUITE 1100,
                        WASHINGTON, DC, 20001
NUMBER OF CLAIMS:       48
EXEMPLARY CLAIM:        1
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NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 2224
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Reagents which regulate human mitochondrial deformylase and reagents which bind to human mitochondrial deformylase gene products can be used to regulate cell proliferation, particularly in diseases such as cancer and other forms of neoplasia.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 22 OF 31 Elsevier BIOBASE COPYRIGHT 2005 Elsevier Science B.V. on STN DUPLICATE
ACCESSION NUMBER: 2004006556 ESBIOBASE
TITLE: An Unusual Peptide Deformylase Features in the Human Mitochondrial N-terminal Methionine Excision Pathway
AUTHOR: Serero A.; Giglione C.; Sardini A.; Martinez-Sanz J.; Meinnel T.
CORPORATE SOURCE: T. Meinnel, Protein Maturation Group, Institut des
Sciences du Vegetal, Ctr. Natl. de la Rech.
Scientifique, 1 avenue de la Terrasse, F-91198
Gif-sur-Yvette Cedex, France.
E-mail: meinnel@isv.cnrs-gif.fr
SOURCE: Journal of Biological Chemistry, (26 DEC 2003), 278/52 (52953-52963), 61 reference(s)
CODEN: JBCHA3 ISSN: 0021-9258
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Dedicated machinery for N-terminal methionine excision (NME) was recently identified in ***plant*** organelles and shown to be essential in plastids. We report here the existence of mitochondrial NME in mammals, as shown by the identification of cDNAs encoding specific ***peptide*** ***deformylases*** (PDFs) and new methionine aminopeptidases (MAP1D). We ***cloned*** the two full-length human cDNAs and showed that the N-terminal domains of the encoded enzymes were specifically involved in targeting to mitochondria. In contrast to mitochondrial MAP1D, the human PDF ***sequence*** differed from that of known PDFs in several key features. We characterized the human PDF fully in vivo and in vitro. Comparison of the processed human enzyme with the ***plant*** mitochondrial PDF1A, to which it is phylogenetically related, showed that the human enzyme had an extra N-terminal domain involved in both mitochondrial targeting and enzyme stability. Mammalian PDFs also display non-random substitutions in the conserved motifs important for activity. Human PDF site-directed mutagenesis variants were studied and compared with the corresponding ***plant*** PDF1A variants. We found that amino acid substitutions in human PDF specifically altered its catalytic site, resulting in an enzyme intermediate between bacterial PDF1Bs and ***plant*** PDF1As. Because (i) human PDF was found to be active both in vitro and in vivo, (ii) the entire machinery is conserved and expressed in most animals, (iii) the mitochondrial genome expresses substrates for these enzymes, and (iv) mRNA synthesis is regulated, we conclude that animal mitochondria have a functional NME machinery that can be regulated.

L6 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2003:668690 CAPLUS
DOCUMENT NUMBER: 140:90788
TITLE: The Arabidopsis thaliana peptide deformylase 1 protein is localized to both mitochondria and chloroplasts
AUTHOR(S): Dinkins, Randy D.; Conn, Heather M.; Dirk, Lynnette M. A.; Williams, Mark A.; Houtz, Robert L.
CORPORATE SOURCE: Department of Agronomy, University of Kentucky,
Lexington, KY, 40546-0312, USA
SOURCE: Plant Science (Amsterdam, Netherlands) (2003), 165(4), 751-758
CODEN: PLSCE4; ISSN: 0168-9452
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Peptide deformylase (DEF; EC 3.5.1.88) catalyzes the removal of the N-formyl group from the methionine residue of organellar- and prokaryotic-translated nascent polypeptides as the first step in cotranslational protein processing and is an essential enzyme for eubacterial survival. Analyses of mitochondria and chloroplasts targeting of two nuclear-encoded DEF proteins has resulted in published discrepancies. Transient expression studies in onion epidermal cells of N-terminal sequences of AtDEF1 and 2 fused with green fluorescent protein (GFP) localized AtDEF2 to mitochondria and chloroplasts and restricted AtDEF1 to mitochondria (EMBO J. 19 (2000) 5916). However, according to immunol. anal. of chloroplast lysates and in vitro uptake and processing using precursor forms of AtDEF1, chloroplasts also import AtDEF1 (Plant Physiol. 127 (2001) 97). To further evaluate the subcellular localization of AtDEF1, we fused full length AtDEF1 and 2 proteins with GFP for transient expression studies using onion epidermal cells (as a direct comparison with previous work) and photosynthetically active tobacco leaves. Because two inframe AUGs exist at the 5' UTR of the AtDEF1 mRNA and the translation start in vivo is unknown, AtDEF1 fusion proteins that begin with each of the putative AUG start codons were tested. Our results indicate that the upstream AUG codon specifically targets AtDEF1: GFP to the mitochondria, whereas the AtDEF1: GFP with the second AUG codon localized the fusion protein to both mitochondria and chloroplasts. A single N-terminal sequence that targets a protein to both organelles is termed an ambiguous presequence and both AtDEF1 and AtDEF2 have such sequences for dual organellar localization.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2003:903662 CAPLUS
DOCUMENT NUMBER: 140:159488
TITLE: A new human peptide deformylase inhibitable by actinonin
AUTHOR(S): Lee, Mona D.; Antczak, Christophe; Li, Yueming; Sirotnak, Francis M.; Bornmann, William G.; Scheinberg, David A.
CORPORATE SOURCE: Weill Graduate School of Medical Sciences, Department of Pharmacology, Cornell University, New York, NY, 10021, USA
SOURCE: Biochemical and Biophysical Research Communications (2003), 312(2), 309-315
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Peptide deformylases (PDFs) have been investigated as potential specific targets for antibiotics, but the possible existence of a functional human PDF (HsPDF) presents a potential hurdle to the design of specific drugs. We have expression ***cloned*** a HsPDF that has ***deformylase*** activity, although it is a slower and catalytically less active enzyme than bacterial or ***plant*** PDFs. A cobalt-substituted form of HsPDF (but not nickel or zinc) is active, and the enzyme appears to be active at a pH between 6.0 and 7.2, a temp. range of 25-50.degree., and in a low KCl ionic strength buffer. Actinonin inhibits HsPDF activity with an IC50 of 43 nM and kills Daudi and HL60 human cancer cell lines with an LC50 of 5.3 and 8.8 .mu.M, resp. The inhibition of HsPDF may provide an explanation for the mechanism by which actinonin is cytotoxic against various human tumor cell lines.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2002:72265 CAPLUS
DOCUMENT NUMBER: 136:130774
TITLE: A method of identifying inhibitors of ***plant*** ***peptide*** ***deformylase*** for use as broad-spectrum herbicides and cloning and expression of Arabidopsis thaliana ***peptide*** ***deformylase*** ***genes***
INVENTOR(S): Houtz, Robert L.; Dirk, Lynnette M. A.; Williams, Mark

```
              Alan
PATENT ASSIGNEE(S):   University of Kentucky Research Foundation, USA
SOURCE:               PCT Int. Appl., 64 pp.
              CODEN: PIXXD2
DOCUMENT TYPE:        Patent
LANGUAGE:             English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

   PATENT NO.       KIND  DATE      APPLICATION NO.       DATE
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   WO 2002006461     A2   20020124  WO 2001-US22115       20010716
   WO 2002006461     A3   20030109
      W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
         GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
         LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
         RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
         UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
      RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
   US 6730634        B1   20040504  US 2000-617805        20000714
   AU 2001080540     A5   20020130  AU 2001-80540         20010716
   US 2004088755     A1   20040506  US 2003-680100        20031008
PRIORITY APPLN. INFO.:              US 2000-617805     A  20000714
                                    WO 2001-US22115    W  20010716
AB   The present invention is directed to a method of identifying an inhibitor
     of plant peptide deformylase activity comprising: incubating a
     catalytically effective amt. of said peptide deformylase with a suitable
     substrate, and a candidate inhibitor compd., and detecting and quantifying
     the enzyme product formed. Identification and isolation of an Arabidopsis
     thaliana peptide deformylase gene (Atdef1), expression and purifn. of the
     A. thaliana peptide deformylase, and cloning and expression of a second
     Arabidopsis peptide deformylase gene (Atdef2) are described.

L6  ANSWER 26 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2002:251213  USPATFULL
TITLE:                Novel human polypeptide deformylase (PDF)
INVENTOR(S):          Li, Xiaotong, King of Prussia, PA, UNITED STATES
                      Lonetto, Michael A., Collegeville, PA, UNITED STATES
                      Southan, Christopher D., Cambridge, UNITED KINGDOM
                      Zhu, Yuan, King of Prussia, PA, UNITED STATES

                        NUMBER         KIND  DATE
                      ---------------- ------ --------
PATENT INFORMATION:   US 2002137158     A1   20020926
APPLICATION INFO.:    US 2001-866099    A1   20010525 (9)

                        NUMBER           DATE
                      ------------------ --------
PRIORITY INFORMATION: US 2000-207475P    20000525 (60)
DOCUMENT TYPE:        Utility
FILE SEGMENT:         APPLICATION
LEGAL REPRESENTATIVE: RATNER & PRESTIA- SB DIVISION, ONE WESTLAKES, SUITE
                      301, BERWYN, PA, 19482
NUMBER OF CLAIMS:     12
EXEMPLARY CLAIM:      1
LINE COUNT:           1205
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB    PDF polypeptides and polynucleotides and methods for producing such
      polypeptides by recombinant techniques are disclosed. Also disclosed are
      methods for utilizing PDF polypeptides and polynucleotides in diagnostic
      assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6  ANSWER 27 OF 31  USPATFULL on STN
ACCESSION NUMBER:     2002:191624  USPATFULL
TITLE:                Tetrahydrofolate metabolism enzymes
```

INVENTOR(S): Falco, Saverio Carl, Wilmington, DE, UNITED STATES
Famodu, Layo O., Newark, DE, UNITED STATES
Orozco, Emil M., JR., West Grove, PA, UNITED STATES
Rafalski, J. Antoni, Wilmington, DE, UNITED STATES
Thorpe, Catherine J., St. Albans, UNITED KINGDOM

NUMBER KIND DATE
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PATENT INFORMATION: US 2002102689 A1 20020801
US 6680428 B2 20040120
APPLICATION INFO.: US 2001-903814 A1 20010712 (9)
RELATED APPLN. INFO.: Division of Ser. No. US 1999-351703, filed on 12 Jul 1999, ABANDONED

NUMBER DATE
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PRIORITY INFORMATION: US 1998-92869P 19980715 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417 LANCASTER PIKE, WILMINGTON, DE, 19805
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
LINE COUNT: 2044
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to an isolated nucleic acid fragment encoding a tetrahydrofolate metabolism enzyme. The invention also relates to the construction of a chimeric gene encoding all or a portion of the tetrahydrofolate metabolism enzyme, in sense or antisense orientation, wherein expression of the chimeric gene results in production of altered levels of the tetrahydrofolate metabolism enzyme in a transformed host cell.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:634531 CAPLUS
DOCUMENT NUMBER: 136:258038
TITLE: Analysis of the chromosome sequence of the legume symbiont Sinorhizobium meliloti strain 1021
AUTHOR(S): Capela, Delphine; Barloy-Hubler, Frederique; Gouzy, Jerome; Bothe, Gordana; Ampe, Frederic; Batut, Jacques; Boistard, Pierre; Becker, Anke; Boutry, Marc; Cadieu, Edouard; Dreano, Stephane; Gloux, Stephanie; Godrie, Therese; Goffeau, Andre; Kahn, Daniel; Kiss, Erno; Lelaure, Valerie; Masuy, David; Pohl, Thomas; Portetelle, Daniel; Puhler, Alfred; Purnelle, Benedicte; Ramsperger, Ulf; Renard, Clotilde; Thebault, Patricia; Vandenbol, Micheline; Weidner, Stefan; Galibert, Francis
CORPORATE SOURCE: Laboratoire de Biologie Moleculaire des Relations Plantes-Microorganismes, Unite Mixte de Recherche (UMR) 215 Centre National de la Recherche Scientifique (CNRS), Institut National de la Recherche Agronomique, Chemin, Tolosan, F-31326, Fr.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2001), 98(17), 9877-9882
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Sinorhizobium meliloti is an .alpha.-proteobacterium that forms agronomically important N2-fixing root nodules in legumes. We report here the complete sequence of the largest constituent of its genome, a 62.7% GC-rich 3654,135-bp circular chromosome. Annotation allowed assignment of a function to 59% of the 3341 predicted protein-coding ORFs, the rest exhibiting partial, weak, or no similarity with any known sequence. Unexpectedly, the level of reiteration within this replicon is low, with only two genes duplicated with more than 90% nucleotide sequence identity,

transposon elements accounting for 2.2% of the sequence, and a few hundred short repeated palindromic motifs (RIME1, RIME2, and C) widespread over the chromosome. Three regions with a significantly lower GC content are most likely of external origin. Detailed annotation revealed that this replicon contains all housekeeping genes except two essential genes that are located on pSymB. Amino acid/peptide transport and degrdn. and sugar metab. appear as two major features of the S. meliloti chromosome. The presence in this replicon of a large no. of nucleotide cyclases with a peculiar structure, as well as of genes homologous to virulence determinants of animal and plant pathogens, opens perspectives in the study of this bacterium both as a free-living soil microorganism and as a plant symbiont.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 2001:694850 CAPLUS

DOCUMENT NUMBER: 135:368487

TITLE: Eukaryotic peptide deformylases. Nuclear-encoded and chloroplast-targeted enzymes in Arabidopsis

AUTHOR(S): Dirk, Lynnette M. A.; Williams, Mark A.; Houtz, Robert L.

CORPORATE SOURCE: Department of Horticulture, N-323 Agricultural Science Center North, University of Kentucky, Lexington, KY, 40546-0091, USA

SOURCE: Plant Physiology (2001), 127(1), 97-107
CODEN: PLPHAY; ISSN: 0032-0889

PUBLISHER: American Society of Plant Biologists

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Arabidopsis (ecotype Columbia-0) genes, AtDEF1 and AtDEF2, represent eukaryotic homologs of the essential prokaryotic gene encoding peptide deformylase. Both deduced proteins contain three conserved protein motifs found in the active site of all eubacterial peptide deformylases, and N-terminal extensions identifiable as chloroplast-targeting sequences. Radiolabeled full-length AtDEF1 was imported and processed by isolated pea (Pisum sativum L. Laxton's Progress No. 9) chloroplasts and AtDEF1 and 2 were immunol. detected in Arabidopsis leaf and chloroplast stromal protein exts. The partial cDNAs encoding the processed forms of Arabidopsis peptide deformylase 1 and 2 (pAtDEF1 and 2, resp.) were expressed in Escherichia coli and purified using C-terminal hexahistidyl tags. Both recombinant Arabidopsis peptide deformylases had peptide deformylase activity with unique kinetic parameters that differed from those reported for the E. coli enzyme. Actinonin, a specific peptide deformylase inhibitor, was effective in vitro against Arabidopsis peptide deformylase 1 and 2 activity, resp. Exposure of several plant species including Arabidopsis to actinonin resulted in chlorosis and severe redns. in plant growth and development. The results suggest an essential role for peptide deformylase in protein processing in all plant plastids.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 30 OF 31 Elsevier BIOBASE COPYRIGHT 2005 Elsevier Science B.V. on STN DUPLICATE

ACCESSION NUMBER: 2000258503 ESBIOBASE

TITLE: Identification of eukaryotic peptide deformylases reveals universality of N-terminal protein processing mechanisms

AUTHOR: Giglione C.; Serero A.; Pierre M.; Boisson B.; Meinnel T.

CORPORATE SOURCE: T. Meinnel, Institut des Sciences Vegetales, UPR40, Ctr. Natl. de la Recherche Sci., 1 avenue de la Terrasse, F-91198 Gif-sur-Yvette Cedex, France.
E-mail: meinnel@isv.cnrs-gif.fr

SOURCE: EMBO Journal, (01 NOV 2000), 19/21 (5916-5929), 80 reference(s)
CODEN: EMJODG ISSN: 0261-4189

DOCUMENT TYPE: Journal; Article

COUNTRY: United Kingdom

LANGUAGE: English

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SUMMARY LANGUAGE:      English
AB   The N-terminal protein processing pathway is an essential mechanism found
     in all organisms. However, it is widely believed that  ***deformylase***
     , a key enzyme involved in this process in bacteria, does not exist in
     eukaryotes, thus making it a target for antibacterial agents such as
     actinonin. In an attempt to define this process in higher eukaryotes we
     have used Arabidopsis thaliana as a model organism. Two
       ***deformylase***   cDNAs, the first identified in any eukaryotic system,
     and six distinct methionine aminopeptidase cDNAs were   ***cloned***  .
     The corresponding proteins were characterized in vivo and in vitro.
     Methionine aminopeptidases were found in the cytoplasm and in the
     organelles, while  ***deformylases***  were localized in the organelles
     only. Our work shows that higher  ***plants***   have a much more
     complex machinery for methionine removal than previously suspected. We
     were also able to identify  ***deformylase***  homologues from several
     animals and  ***clone***   the corresponding cDNA from human cells. Our
     data provide the first evidence that lower and higher eukaryotes, as well
     as bacteria, share a similar N-terminal protein processing machinery,
     indicating universality of this system.

L6   ANSWER 31 OF 31  BIOTECHNO  COPYRIGHT 2005 Elsevier Science B.V. on STN
ACCESSION NUMBER:      1993:23025043  BIOTECHNO
TITLE:                 Purification and sequencing of cytochrome b from
                       potato reveals methionine cleavage of a
                       mitochondrially encoded protein
AUTHOR:                Braun H.-P.; Schmitz U.K.
CORPORATE SOURCE:      Inst. für Genbiologische Forschung, Berlin GmbH,
                       Ihnestrasse 63,W-1000 Berlin 33, Germany.
SOURCE:                FEBS Letters, (1993), 316/2 (128-132)
                       CODEN: FEBLAL  ISSN: 0014-5793
DOCUMENT TYPE:         Journal; Article
COUNTRY:               Netherlands
LANGUAGE:              English
SUMMARY LANGUAGE:      English
AN   1993:23025043  BIOTECHNO
AB   Several mitochondrial  ***genes***  from a large number of different
     fungi, mammals and  ***plants***   have been  ***sequenced***  but
     little is known about the corresponding translation products. We have
     affinity purified cytochrome c reductase from potato mitochondria and
     isolated the mitochondrially encoded cytochrome b protein. Amino-terminal
     sequencing reveals that the  ***polypeptide***  does not start with a
     methionine. Comparison of the amino acid  ***sequence***  with the
     recently published  ***sequence***  of the  ***gene***  encoding the
     cytochrome b apoprotein suggests that the N-formylmethionine is removed.
     This result provides the first evidence for the presence of a
       ***deformylase***  and a methionine aminopeptidase in mitochondria.
=> d his

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
     BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
     CROPU, DDFB, DDFU, DGENE, DISSABS, ...' ENTERED AT 19:08:22 ON 29 AUG 2005
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     FILE 'CAPLUS, SCISEARCH, BIOSIS, EMBASE, MEDLINE, USPATFULL, PROMT,
     ESBIOBASE, PROUSDDR, TOXCENTER, WPIDS, BIOTECHNO, LIFESCI, AGRICOLA'
     ENTERED AT 19:14:24 ON 29 AUG 2005
L2        2184 S L1
L3         433 S (GENE# OR SEQUENCE# OR POLYNUCLEOTIDE# OR CLONE# OR RECOMBINA
L4          42 S PLANT (S) L3
L5          48 S PLANT# (S) L3
L6          31 DUP REM L5 (17 DUPLICATES REMOVED)

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